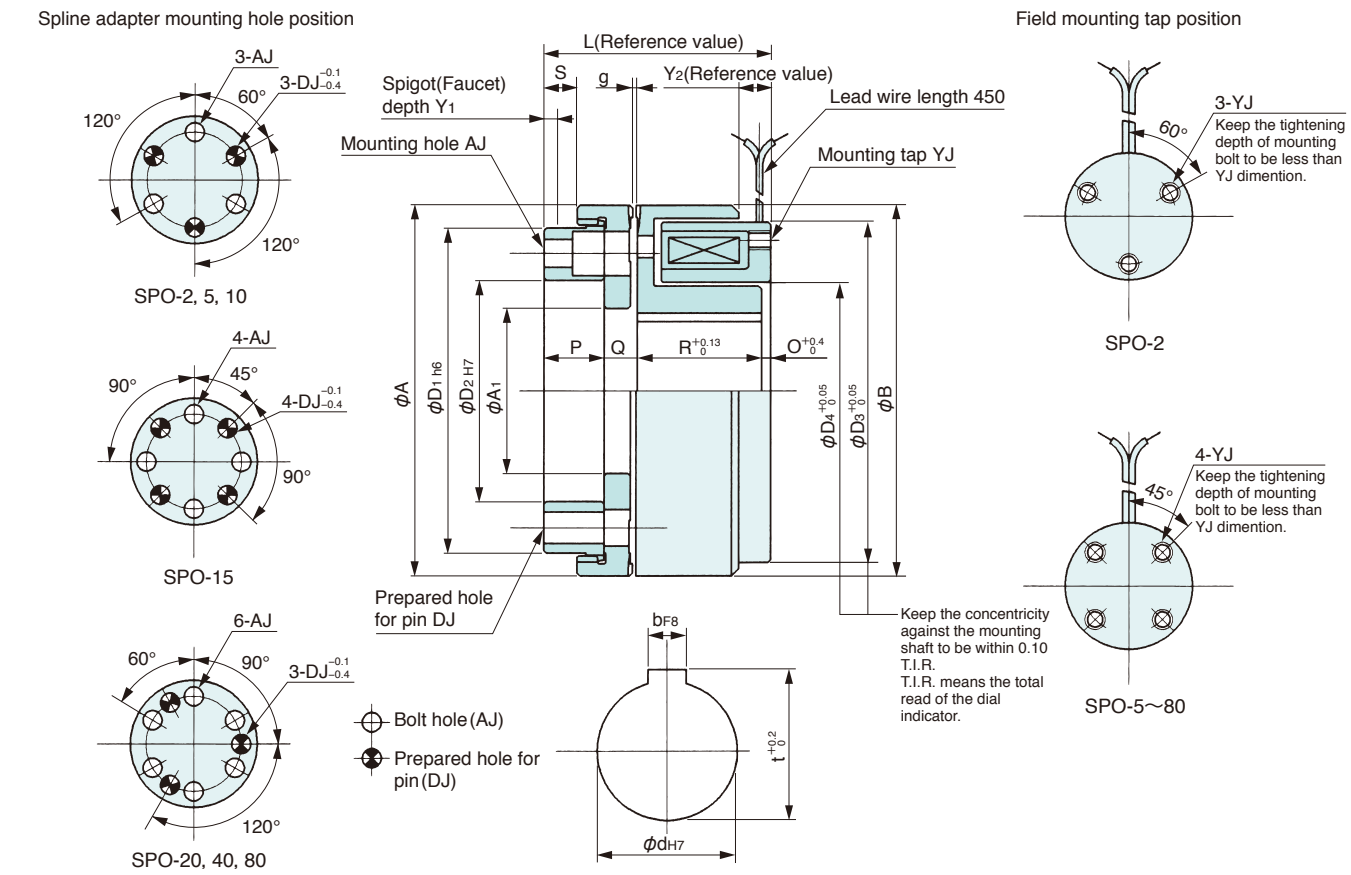


Static Coil Single-Position Clutch

SPO-2, 5, 10, 15, 20, 40, 80

Model	Rated torque(Nm)	Rated voltage(DC-V)	Power consumption at75°C(W)	Mass(kg)
SPO-2	20	24	13	0.60
SPO-5	50	24	20	1.0
SPO-10	100	24	34	1.8
SPO-15	150	24	34	2.7
SPO-20	200	24	50	4.2
SPO-40	400	24	70	7.2
SPO-80	800	24	79	12



Model	Diameter direction							Shaft direction									Attachment					Shaft hole		
																	YJ							
	A	A ₁	B	D ₁	D ₂	D ₃	D ₄	L	O	P	Q	R	S	Y ₁	Y ₂	g	P.C.D	AJ	DJ	P.C.D	Tap	d	b	t
SPO-2	50.8	15.9	50.8	44	25	46.56	23.04	40.3	2	8.6	6.1	23.6	4.5	2	4.6	0.2 ^{+0.1} _{-0.1}	35	φ3.4hole, φ6.5 ℓ: 4	4	38.1	M3x4.5	12	4	13.5
SPO-5	76.2	38.1	76.2	64	42	71.37	42.82	49.3	2.5	11.2	7.99	27.61	5.3	3	6.1	0.3 ^{+0.2} _{-0.2}	53.74	φ5.5hole, φ9 ℓ: 6.5	6	63.5	M4x5	24	7	27
SPO-10	85.9	40	85.9	73	50	79.32	48.39	55.9	2.5	12.7	7.95	32.75	6.6	3	6.6	0.3 ^{+0.2} _{-0.2}	62.48	φ5.5hole, φ9 ℓ: 6.5	6	71.42	M4x5	28	7	31
SPO-15	98.6	45.2	98.6	86	58	91.24	55.52	63.0	2.5	15.7	9.75	35.05	9.4	4	6.6	0.4 ^{+0.3} _{-0.3}	72.9	φ6.5hole, φ11 ℓ: 7.5	8	84.12	M5x6	37	10	40.5
SPO-20	117.4	55	117.4	103	70	108.71	66.85	71.4	2.5	19	10.78	39.12	10.4	5	9.9	0.4 ^{+0.3} _{-0.3}	86.86	φ8.8hole, φ14 ℓ: 10	10	95.26	M6x6	44	12	47.5
SPO-40	137.7	64.3	137.7	118	84	128.55	79.35	86.9	2.5	22.4	12.85	49.15	13.8	6	9.9	0.4 ^{+0.3} _{-0.3}	101.6	φ8.8hole, φ14 ℓ: 10	10	114.3	M6x8	57	15	62
SPO-80	162.6	79.3	162.6	144	104	152.35	99.01	104.1	3.8	28.4	14.19	57.71	16.8	8	10.4	0.5 ^{+0.3} _{-0.3}	124.46	φ11hole, φ17.5 ℓ: 13	13	133.36	M8x9	67	18	73

Unit: mm

Brush Holder

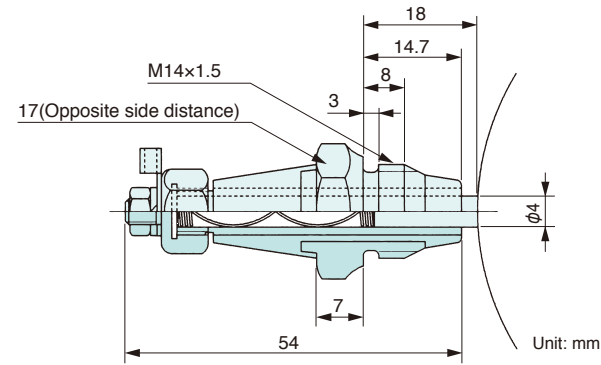
Brush holder for TR type clutches

The brush and holder shown below are required to use the rotation coil tooth clutch (TR type). Please order this part separately as it is not included with the clutch.

●Tubler brush holder for small class TR type clutches

Brush for AP-223 type

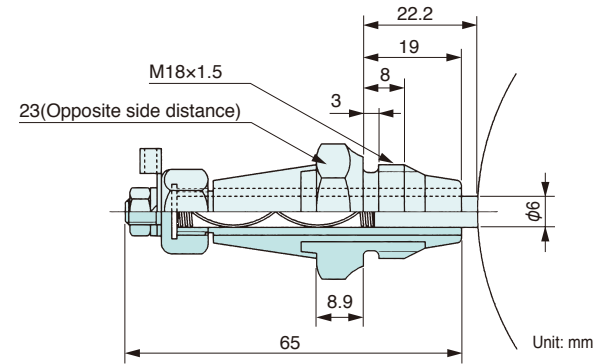
For wet usage:AP-223-1/For dry usage : AP-223-2



●Tubler type brush holder for middle class TR type clutches

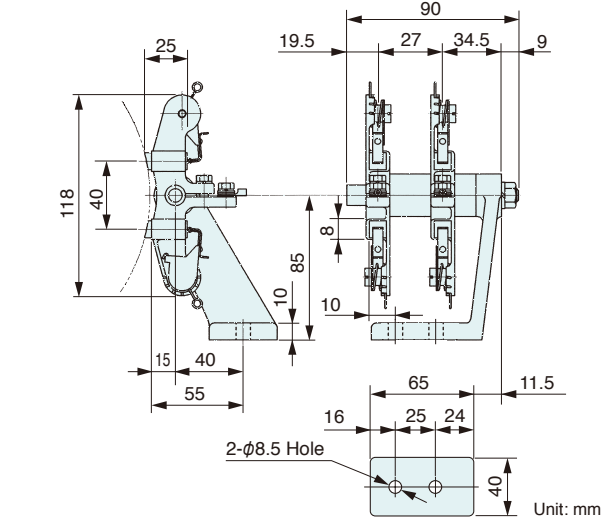
Brush for AP-45 type

For wet usage:AP-45-1/For dry : usageAP-45-2



●Multiple brush holder A for large TR type

This is the brush holder used for the TR-2500 and TR-5000 type.



Brush holder and its application table

Brush holder type	Application	Brush type	Number of uses	Applicable clutch type
AP-223	For wet mode	AP-223-1	1	TR-2~15
	For dry mode	AP-223-2	1	TR-2~15
AP-45	For wet mode	AP-45-1	1	TR-20~80
			4	TR-280~5000
	For dry mode	AP-45-2	1	TR-20~80
			2	TR-280~1120
Multiple A type	For dry mode	8x10x25	1 set (4 pieces)	TR-2500~5000

(Note) When AP type brushes are used, please connect the plus side of the brush to the clutch spring and the minus side of the brush to the yoke side.

Brush performance specification list

Brush type	Dimension (mm)	Maximum allowable current (A)	Maximum allowable peripheral speed (m/s)	Contact pressure (N)	Memo
AP-223-1	φ4x16	3	12.7	10	With pigtail and spring
AP-223-2	φ4x16	1.4	25	3.5	With pigtail and spring
AP-45-1	φ6x20	6	12.7	20	With pigtail and spring
AP-45-2	φ6x20	3	25	5	With pigtail and spring
Multiple A type	8x10x25	20	25	2~2.5	1 set (4 pieces) with pigtail

- (Note) 1. The tubler brush can be used for both wet and dry operation by changing the brush module. Wet operation uses a braided bronze brush and dry operation uses a copper carbon brush.
2. During wet operation, if the peripheral speed of the spring is more than 12.7m/s or if the current usually flows on the spring, attach 2 brushes with a 90-degree angle between them and apply the current across both brushes.
3. Connect the plus side to the brush holder and connect the minus side to the separate brush sliding on the shaft attached to the clutch body. Be careful not to connect the plus and minus terminals inversely.
4. When the clutch is used while submersed in oil, attach an idler brush in the forward direction of rotation without applying any additional current.
5. If you use a clutch larger than our type TR-280 for wet operation, use 4 AP-45-1 type brushes, designating one as an idler, as is described in note 4.

- (Note) 1. The TO and SPO types are designed to be attached to a fixing adapter or a fixed part of the machine to maintain proper thermal dissipation. If there is insufficient space for ventilation or if the clutch is installed in a sealed box with direct sun exposure, the ambient temperature will increase. Please contact us for application advice.
2. If using the TR-280, 560, or 1120 types, attach the grounding brush to the shaft in order to protect the machine's shaft bearing.